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Pheasant recovery project

The Game Commission has launched a long-term study designed to determine if the key to a possible pheasant recovery lies with better habitat or with a new subspecies recently obtained from China, the Sichuan pheasant.

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SICHUAN PHEASANTS will be released in three areas of the state, while the familiar ringneck will be released in three others. Researchers will monitor the success of these stockings in hopes of better understanding the factors affecting pheasants in Pennsylvania and, more importantly, possibly reestablishing the game birds here.

Pheasant Recovery Project

By Joe Kosack

PGC Information Specialist

AT ITS JANUARY meeting, the Game Commission tentatively approved the closure of six large areas to pheasant hunting for at least five years, a crucial part of a comprehensive research project that may ultimately lead to the restoration of the state's pheasant population. The project also features the state's first attempt to establish Sichuan pheasants here. The project's main goal is to determine whether a new pheasant — the Sichuan — or better habitat holds the key to pheasant recovery.

Each year, from 1993 through 1995, a minimum of 1,800 pheasants will be stocked on six sites, each of which is at least 25,000 acres. Sichuans will be released on sites in Crawford, Juniata and Northumberland counties; ringnecks in Centre, Dauphin and Erie. It's hoped that population densities of 36 pheasants per square mile can be established on each site.

Population Trends

During the course of the study, radio-equipped birds will be monitored in order to determine habitat preferences, home range and survival rates. Spring crowing counts and flushing surveys will also be used to measure population trends.

Another facet of the study is to determine whether the game farm ringnecks are capable of establishing self-sustaining populations. In 1984, the agency's pheasant propagation procedures were redesigned to produce ringnecks more capable of surviving in the wild. Since then, however, based on upland game trend surveys, pheasant populations have not increased.

It's important to point out, though, that the birds raised under the new procedures have often been stocked in minimal numbers, haven't been afforded closed season protection and, in some cases, haven't been released in suitable habitat.

To give the birds every possible chance to become established, no pheasant hunting will be permitted on the core study areas and their buffer areas for at least five years. Biologists want to first evaluate how predators and the availability of food and habitat affect the birds. If and when each area's pheasant population becomes self-supporting and begins to expand into the buffer zone, hunting will be allowed, possibly with restrictions to control or limit hunting pressure. The study is expected to run until the summer of 2001.

1.3 Million to 300,000

Since Pennsylvania's ring-necked pheasant population peaked in the early 1970s, the annual harvest has declined from 1.3 million to 300,000 birds. Correspondingly, over just the past decade, the number of pheasant hunters has decreased from 770,000 to less than 300,000.

During the ringneck's heyday, wild pheasants numbered in the millions and accounted for a majority of the harvest. As the '70s progressed, however, the pheasant population declined, and today pheasant hunting is largely sustained by birds raised and stocked by the Game Commission.

Wildlife managers have long contended that habitat loss and land-use changes have caused the ringneck's plunge. In recent years, thousands of farmland acres have been lost to industrial complexes, shopping malls, suburban developments and urban sprawl. On areas still being farmed, smaller fields have been consolidated into bigger ones to accommodate larger farm equipment, causing a loss of fencerows and other areas where pheasants once found food and shelter. Changing farming practices also include an increased use of pesticides and herbicides, which kill off insects and weedy cover vital to pheasant survival.

Today, after harvesting, cornfields are barren ground; fencerows and windbreaks have vanished. Hay is mowed earlier and more frequently, giving hens little or no time to raise a brood.

Twenty-five years ago, for their first few weeks of life, pheasant chicks could find all the food and cover they required without leaving the hay field where they had hatched. Today — if a hen is able to even hatch her brood before the hay is cut — she and her young must range farther to obtain adequate food and cover, greatly increasing their exposure to predators and other dangers.

If inadequate nesting and brood habitat is the major problem affecting ringnecks, then the Sichuan may be part of the answer. The Sichuan (also known as Strauch's pheasant) was brought to America in 1985 through arrangements between Michigan and the People's Republic of China. According to studies by Michigan's Department of Natural Resources, Sichuans have demonstrated high success by nesting and raising broods in brushy areas, not cultivated fields. If the Sichuan ultimately proves to be able to thrive in such habitat, it could be the key to rejuvenating pheasant populations here.

The Game Commission began experimenting with hybrid Sichuans in 1987 when 40 purebred Sichuan cocks were received from Michigan. They were bred with wild ringneck hens to produce ringneck/Sichuan hybrids. The offspring were released in western Mercer County and at Franklin County's Letterkenny Army Depot.

Telemetry studies indicate the hybrids — like purebred Sichuans — prefer to nest outside active agricultural areas. Since 1989, however, when the last releases were made on these areas, the Letterkenny population has declined. Possibly because of better habitat, the Mercer population has remained stable, at spring densities of approximately 12 birds per square mile.

The purebred Sichuans scheduled for release this coming fall will be offspring of 75 Sichuan hens and 25 cocks acquired from Michigan in December 1990. In exchange for those birds, the agency agreed to send Michigan 200 purebred Sichuan chicks each year for five years.

Somewhat smaller than ringnecks and bearing no white ring around their necks, Sichuans are more secretive, wary birds. They seem to be more aggressive and high-strung than ringnecks. At the pheasant farms, they require more space than ringneck chicks. Also, Sichuan males seem attentive to chicks, while ringneck cocks rarely display interest in broods.

Propagators believe the wariness exhibited by Sichuans can be attributed to their fairly recent wild ancestry — they're only five or six generations removed from the wild. Their behavior is much like ringnecks born and raised in the wild.

Despite some obvious differences, Sichuans and ringnecks are alike in many ways. Sichuan cocks crow less frequently but sound like ringnecks. Both birds prefer to escape danger by running and hiding; flying is a last resort. Sichuans, however, exhibit more of a tendency to squat and hide at the first sign of danger. Both species fly and run at about the same speeds.

It's not surprising Sichuans and ringnecks are so similar; they're members of the same species, *Phasianus colchicus*. Ringnecks, however, are a more diluted subspecies because they've been bred with many different strains over a long time.

In 1991, about 1,000 Sichuan chicks were produced at the Northcentral Game Farm. In 1992, with a breeding base augmented by 285 first-generation hens, chick production approached 6,000.

Last year, hunters had the chance to hunt 1,800 surplus Sichuans released on the Letterkenny Army Depot and on the three areas in Crawford, Juniata and Northumberland counties targeted for study in the recovery project. This coming fall, pheasant hunting will be permitted in the western Mercer County study area, where 5,400 birds were released from 1987 to 1989.

Sichuans will not be released statewide until it's determined whether the birds can survive and if they pose any threat to wild ringnecks or other upland game bird populations.

The success of the pheasant recovery project depends on the cooperation of sportsmen and conservation-oriented groups. Manpower will be needed to post the study areas and buffer zones, assist with pheasant releases and conduct winter flushing counts.

Outdoorsmen will be encouraged to report illegal harvests. They can also assist with band recoveries and feeding habits studies by reporting and collecting any dead pheasants found in the study areas.

Furtakers tending traps within the areas will be asked to record and report their catches, and bird watchers may be asked to help monitor birds of prey in the study sites.

There are no illusions that this project represents a panacea to the problems facing pheasants in Pennsylvania. However, if restoration efforts are successful, we will have a cost-effective method for establishing populations on other areas where habitat quality remains above average. Information gained may also be useful for future habitat improvement programs, and we will also gain a better understanding of the survival and productivity of the game farm ringnecks.

Finally, considering that the Mercer study area now has 12 birds per square mile and that all six study sites have better habitat, higher pheasant populations should result on those six study areas, even if other program objectives are not met.

Whether or not pheasants can be reestablished in Pennsylvania remains to be seen, but through this ambitious project the Game Commission is fully evaluating the most promising options.